Personnel

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Introducing the New Employee to the Job

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Design for the Future of Industrial Relations

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Budgeting Labor Needs

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Eye Protection in War Industry

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Record-Keeping for Absence Control

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Improving Job Efficiency Through Supplementary Training

JULY, 1943

AMERICAN MANAGEMENT ASSOCIATION AMA

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..... Strictly personnel

What Awards for Suggestions?

How much should management pay for employee suggestions? Considerable difference of opinion exists on this question, but many personnel managers feel that inadequate awards have frequently been responsible for the failure of suggestion systems.

According to F. A. Denz, Manager, United Air Lines Employees' Suggestion Conference, suggestion systems cannot be regarded as ventures for profit only. Their primary purpose, he believes, is to improve employee relations. In a talk prepared for a conference of the National Association of Suggestion Systems, he points out that a good many managements have destroyed all employee faith in their plans by their niggardliness. Some have paid as little as 50 cents in certain cases; and the maximum award has been set as low as $25, with a limit on the number of maximum awards that will be granted in any one month.

"Studies of some of the larger suggestion systems," says Mr. Denz, "indicate that to place a limit on suggestion awards automatically limits the quality of the suggestions. Limit the maximum of your awards to $25, and I doubt whether you will get many $100 ideas."

United Air Lines itself places no limit on cash awards, has paid as high as $1,200; and despite the fact that the system is regarded primarily as a tool for the improvement of employee relations, substantial dividends have been realized. Analyzing suggestions adopted in 1941, the company found that the actual monetary gain resulting from the six leading suggestions alone was more than sufficient to pay the entire cost of the program, including salaries, supervisory time spent in investigating the feasibility of the suggestions, and incidental expenses. When the intangible benefits resulting from the six suggestions were considered, the return was shown to be more than three times the cost of maintaining the plan. Moreover, this calculation took no account of the savings accruing from the 283 other suggestions adopted.

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Labor Management in German Plants

The lot of the German employer, which has been difficult enough since 1934, has become considerably harsher since the outbreak of the war, reports Denis A. Cooper in the May issue of *Mill & Factory*. Hedged in by government regulations and spied upon by a *Vertrauensrat* (Council of Trust) from the Labor Front, the employer's only prerogatives appear to be nominal ownership of his plant and the honorary title of *Betriebsfuhrer* or plant leader.

Encroachment on the employer's field of action began with the promulgation of the "Act for the Regulation of National Labor" on January 20, 1934. Under this act as it now stands, any enterprise employing two or more persons must have a Council of Trust composed of

from two to 10 of the employees, all of whom must be trusted members of the Labor Front. The Council participates actively in all matters pertaining to labor management and is also entitled to all information necessary to the performance of its task, which means, in practice, that it can pry as it pleases. Moreover, since the Labor Front is in no sense a "union" as Americans understand that term but an arm of the government, the establishment of a Council of Trust is practically equivalent to placing Nazi officials in the plant itself.

Disputes between the employer and the Council of Trust are settled by the "labor trustee," a government official; and non-compliance with his orders makes the employer liable to fines and/or imprisonment, to say nothing of removal from his post. The labor trustee is, in fact, the real boss of the situation; under the general direction of the Minister of Labor, he actually manages all enterprises within his jurisdiction.

And that is not the whole story. Rules and orders issued by the government prevent the employer from determining either the number or the type of employees he will hire. Similarly, shop rules covering such matters as rest pauses, time and manner of wage payments, and shop discipline are prescribed in detail either by general industry-wide regulations or by orders emanating from the Council of Trust or the labor trustee.

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Time Study Girls Make Good

On routine time study work, women are proving just as proficient as men, Richard Diffenbaugh, industrial engineer of the duPont Company, Edgemoor, Dela., told the Time and Motion Study Group of the Society for the Advancement of Management recently. DuPont is now using women for all planning or routine work, for drawing up charts and data sheets, for making preliminary time studies and, in some cases, for advanced work. Moreover, it has taken girls without industrial background, most of whom had never seen the inside of a plant before, and trained them for the job.

Female apprentices are started on clerical tasks under the supervision of experienced time study men. Collecting and summarizing data, figuring bonuses from standards, and handling correspondence pertaining to time and motion study work, they soon become familiar with the terminology. A trip through the plant helps them to understand the part time study plays in production.

Training proper is conducted through classwork—24 two-hour lectures in which the trainees are familiarized with charts, symbols, and the 20 principles of motion economy. They fill out charts themselves, and practice the use of the stopwatch until they are accurate and dependable.

For instruction in effort rating, a film showing a series of operations performed at different speeds is used. The girls rate the operators again and again, continuing to do so until their findings attain a specific degree of accuracy.

Walking practice is next on the program. Out in the warehouse, an experienced time study man marches off 100 feet at a certain pace, while the girls rate him. This practice drill is repeated at different speeds until all attain the required skill. Finally, the girls are assigned to observe actual operations and check the effort ratings which the instructor supplies.

From this method of training duPont has realized encouraging results. It has found that the girls require slightly more follow-up than men do, and that

it is well to "refrain from making them work in restricted areas or in cold and smoky places, so as not to discourage them"; but otherwise it has no reservations.

Other companies which have succeeded in making time study men out of girls include the Wright Aeronautical Corporation and The Reliance Electric and Engineering Co., Cleveland. The latter reports that the first girl trainee has now been on the job 10 months and is a "top-notch time-study worker on hand and machine operations."

★

Toward Uniform Wage Rates

War Labor Board plans for the establishment of uniform wage rates for each war industry are going forward, *The Journal of Commerce* reports, but established regional differentials are complicating the problem. Twenty-six airframe and modification center cases which were recalled to Washington for mass processing are now to be decided individually, since it has been found that scales in the Midwest area, which are affected by rates obtaining in Detroit, are at wide variance with those of the West Coast.

The original plan was to settle the entire batch in accordance with the SCAI (Southern California Aircraft Industry) plan, which was also to be used as a guide in the establishment of wage scales in other industries. Minimum wages under the SCAI formula ran from 75 cents an hour to $1.25, and maximums from 75 cents to $1.45, with rates of $1.30 to $1.60 for specialists in four top grades.

The SCAI system also embodies a job evaluation plan based on seven factors: (1) skill; (2) mentality; (3) equipment and material responsibility; (4) mental application; (5) physical application; (6) job conditions; and (7) unavoidable hazards—with skill (judged by the amount of training and experience normally required to qualify the worker for the job) being assigned the greatest weight. Instead of establishing individual scales for each of the industry's 291 separable jobs, however, the SCAI system groups the entire list into 10 "labor grades," those having a point value below 200 constituting the lowest grade (X) and those evaluated at 600 points or more being placed in Grade I. While a point value of 890 is theoretically possible under the formula, the highest actually assigned to any job in the aircraft industry was 655, for service and flight inspectors. Lowest in the point scale were janitors, rating only 125.

★

Cooperative Education Speeds War Production

College girls can now pay for their education by working alternate three-month periods in a war plant and going to school in the intervening three-month periods. Details of this innovation in higher education, evolved to attract more women into war industries, were revealed by Dr. Guy Halbert Wimmer, president of Shurtleff College, co-sponsor of the plan with Western Cartridge Company, holder of major government war contracts.

"As it applies to women, many details of this plan are entirely new," said Dr. Wimmer, whose school, founded in 1827, is the oldest educational institution in the Midwest. "Students are now being enrolled who are qualified to take office jobs or do laboratory or research work, but there will also be places open in the factory."

As far as possible, two college "double-uppers" will work as a team. In common with the prevailing practice in many schools, they will share the same room in the college dormitory.

While one girl works in the war plant for a three-month period, the other takes her usual quarter-term college course. At the end of each three-month period, the two girls reverse their positions. In this way the war plant has the uninterrupted services of a productive worker and the college can maintain its classes and teaching staff at maximum efficiency.

During the three months that the student is a war worker, she can earn approximately enough to defray her living costs plus the cost of tuition and board for the three months she attends college classes. Exact earnings will depend upon previous experience and training.

Young women who fulfil the entrance requirements first register at Shurtleff College. Through the U. S. Employment Service they will then be sent to the Western Cartridge Company office at Alton, Illinois, for the same thorough interview and medical examination given every prospective employee of the company.

Selected college courses are also conducted in the evening so that students working at the factory may attend classes after their regular working hours and thus acquire credits to speed their graduation. Ambitious students can complete a college course in about four and a half years.

"The extension of this college-war worker plan not only holds great promise to industry today, when it needs every pair of hands it can get, but it will also be an intelligent step in post-war planning," says John M. Olin, vice president of Western Cartridge Company. "Young men and women who left school to serve their country will find in this plan, if it is extended, the means to continue their interrupted education and resume their normal place in the economic life of the nation with the least dislocation."

★

Hiring of Aliens Simplified

In a statement urging full use of all loyal aliens, the War, Navy and Justice Departments and the Maritime Commission have jointly announced shortening and simplification of the procedure whereby holders of government airplane and "classified" contracts may obtain permission for hiring aliens within two weeks or less.

Major points of the alien employment policy stressed in the statement follow:

1. Full use should be made of all loyal and qualified workers irrespective of national origin or citizenship.

2. Contractors may employ aliens as freely as American citizens except on aeronautical or classified contracts.

3. Contractors may employ aliens on aeronautical and classified contracts if they obtain the written consent of the head of the government department concerned.

4. The anti-discrimination clause applies equally to citizens and non-citizens.

5. The anti-discrimination clause applies to work under aeronautical and classified contracts.

6. The procedure for securing permission to employ an alien on aeronautical or classified contracts has been shortened so that the employer should now receive a decision on his request within less than two weeks.

7. The contractor's responsibility for plant security applies to all persons regardless of their citizenship.

TRAINING FOREMEN IN HUMAN RELATIONS

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Foremen untrained or improperly trained in the psychology of supervision represent one of the most significant causes of dissatisfaction and poor morale among employees today. Indeed, in many expanding war plants the unfamiliarity of "green" foremen with the cardinal principles of leadership has been responsible for a serious slowdown of production. In the following paper Mr. Sutermeister restates the fundamental maxims of supervision which are overlooked or ignored by many inexperienced foremen. While designed as a guide for a foremanship training course in human relations, this article can be read with profit both by veteran foremen and those newly appointed to supervisory positions.

SEVERAL weeks ago a middle-aged worker stepped into our personnel office, threw down his badge, and declared that he was quitting. The reason? "My foreman is only 21 years old, and he knows less than I do. I'll be damned if I'm going to take orders from him!" The facts? The 21-year-old foreman was definitely superior to the worker in technical ability and knowledge of the operation involved; but he was sadly deficient in knowledge of human relations. Although most supervisors can meet the former requirement, the failure of many of them to meet the latter requirement has been responsible for a serious retardation of war production. Much of the dissatisfaction in war plants today arises not from low wages or from unsatisfactory working conditions but from the treatment which a foreman accords his men. Proper training of foremen and supervisors in human relations and in the psychology of supervision can contribute substantially to the successful functioning of an expanding industrial organization.

THE FOREMAN *IS* THE COMPANY

In indoctrinating foremen with the proper principles of supervision, one might well begin by stressing the fundamental fact that, to the average worker, the *foreman is the company*. The foreman may be the sole means of contact which the worker has with the organization. The foreman is the man whom he sees for eight hours every day, week after week. The treatment which the worker receives at the hands of his foreman is often more important to him than his wages.

After a new employee has been introduced to his job and settles down into the regular routine of his operation, the relationship between him and

his foreman is perhaps the most important factor making for satisfaction or dissatisfaction on the job. The worker who dislikes his foreman will rarely tell his friends that the company is a good one and the foreman poor, but rather that his foreman is terrible and, therefore, the company also is terrible. In other words, the company is judged, in the mind of the worker, largely by the type of foremen and supervisors it employs.

PUTTING HIMSELF IN THE WORKER'S SHOES

A second cardinal principle which must be impressed upon foremen is that they should put themselves in the shoes of the worker and try to see the worker's side of every situation. This sounds very simple, but, as a matter of fact, it is one of the most difficult principles for any supervisor to remember to follow. The average foreman is extremely busy and under pressure from all sides. He has big problems to solve; he has decisions to make which may affect 20 or 30 workers or even the entire workforce; he is constantly spurred by the realization of the responsibility he bears. It is usually difficult, therefore, for him to see a problem from the worker's viewpoint. Nevertheless, the fundamental maxim of personnel administration—to put yourself in the other person's shoes—must be impressed on every foreman, supervisor, and lead-man, because they, after all, are the individuals who really carry out the personnel program in an organization.

These two principles comprise the basic philosophy underlying proper supervision. Ways in which this basic philosophy can be applied are discussed in the succeeding sections.

COMMANDING RATHER THAN DEMANDING RESPECT

The foreman who recognizes that he represents the company to the worker and who, therefore, constantly strives to put himself in the worker's shoes will make a serious effort to *command* the respect of his men rather than to *demand* it. The foreman who makes his men perform an action unnecessarily in order to teach them that he is the boss, or the foreman who brags to his men, "I do the thinking around here, and I give the orders—all you have to do is to follow them," is *demanding* the respect of his men. On the other hand, the 65-year-old foreman who, after repeated failures to get his crew of husky teen-aged men to stay on the job until quitting time, finally peeled off his coat, rolled up his sleeves, and humorously threatened to "lick" them all, *commanded* the respect of those men from that time on. Similar to this was the case of the foreman who saw that one of his workers would not have time to complete an airplane wing which he was told to finish before the end of the shift. He admonished the worker jokingly that it would be necessary to carry the work home with

him and complete it there. This foreman, by setting the worker at ease, readily commanded his respect.

LEADING, NOT BOSSING

The foreman who applies our basic philosophy of supervision would act *not* in the capacity of a boss but rather in the capacity of a *leader* of his men. He would recognize that the worker may know more about his job than anyone else in the organization. He would gladly seek the worker's advice and obtain the worker's opinion on matters affecting the worker's job. He would be careful to consult all workers who are affected by a policy under consideration. He would realize that he can secure greater cooperation from his men by sharing a secret with them and by informing them of proposed changes in job methods than by withholding information from them. Foremen must be constantly reminded that the average worker, whether he is a skilled machinist, a common laborer, or a janitor, has thoughts and feelings of his own just as has the foreman.

The average worker is as interested as the Italian laborer in the reason why a job is performed in a certain manner. The Italian was told to dig holes in various spots in a field; and then, after each hole had been dug, he was told to fill it up. He soon tired of this procedure and, not perceiving any reason behind it, threw down his shovel and quit. As soon as the foreman explained to him why the holes were being dug—that it was an attempt to locate a pipeline running through the field—the worker was perfectly agreeable and willing to continue digging holes haphazardly.

The experienced mountain guide has learned the value of leading rather than bossing. In guiding a group of inexperienced climbers to the summit of a high peak, he finds it necessary to tell them frequently how far it is to the next resting place, and constantly to set up goals for them to reach before resting. Otherwise the party may set the pace and lead the guide, instead of vice versa. One of the inexperienced climbers will simply stop and exclaim that he can go no farther without a rest. If, however, the guide has determined upon a goal to be reached, and if he has shared this information with the party so that its members establish the same goal in their minds, then it is relatively easy for him to maintain leadership of the group.

The foreman who has learned to lead his men will usually *request* them to perform a job rather than *tell* them to do it. The new employee who *tells* an older employee to do something finds that his order is met with resentment and bitterness. However, if the new employee *requests* the older employee to do something in a friendly fashion, the chances are the older employee will cooperate readily. Tremendous importance attaches

to the tone of voice and the manner of speaking employed by the foreman.

Leadership is by no means confined to the industrial scene. A boat captain refused to leave his sinking ship because two of the crew were trapped in the hold. Instead, he went below, while the ship was on the verge of capsizing, and dragged the two crew members to safety. The reaction of the crew after they had been brought into port was: "Of course we're going back to sea, as long as we can sail under this captain. He is a real leader."

A white man supervising a group of Negroes in the South arrived at work late one morning and found them gathered around a stove. When they saw him coming, they dispersed in all directions and tried to appear as if they had been working. The boss called them back to the stove and said: "Come on and get warm first, fellows. Nobody can do a good job of working when he is cold."

"Selling" has been defined as "letting someone else have your own way." This is a good principle for foremen to keep in mind. The most successful foreman is the one who can make the jobs which he wants done look so attractive to the worker that the latter wants to get them done too. In this same vein, good "leading" has been defined as "letting someone else do what you want him to do."

A foreman has taken a broad step toward effective leadership when he knows his men by their first names and their nicknames and when he is familiar with their hobbies or other aspects of their lives away from the plant. This helps set each worker apart, to endow him with a personality distinct from that of every other individual.

FOSTERING THE EMPLOYEE'S PRIDE IN HIS WORK

The common laborer and the clean-up man have no less personal pride than the independent business man or the lawyer or teacher. Any method which the foreman can use to develop and maintain a feeling of pride in the mind of the worker will promote interest and satisfaction in the job. The foreman must make it easy for a worker to retain his pride even when he must be reprimanded for a mistake. Pride of workers in their crafts can be fostered by pointing out the relationship between the jobs they are doing and the completed product, by showing them where they fit into the over-all picture, by taking them on a tour of the other departments in the plant, and by appealing to their intelligence and ingenuity. The manager who walks through the plant and questions the workers about their particular operations helps to create pride and a feeling of satisfaction in those workers' minds. The worker who is given a record of his performance, or who is shown a record of the operating performance of the product

he is making, will probably take heightened pride in his work and is likely to become a more efficient worker. It was this fact which must have led Donald Nelson to recommend that a system for reporting to workers on the production line about the performance of weapons and munitions in the military arena be established.

ADMINISTERING REPRIMANDS

The lack of knowledge on the part of foremen as to how to reprimand a worker and make him like it (or at least recognize the justice of the reprimand) probably causes more trouble and dissatisfaction between foremen and employees than any other single factor. If a course designed to train foremen in the psychology of supervision accomplishes no other purpose than to indicate to them the proper method of reprimanding an employee, the 10 or 20 hours which the course has required will be extremely well spent.

Before reprimanding an employee, the foreman should take three steps: First, he should carefully investigate what has occurred and ascertain the facts. The investigation may reveal that the worker has a sound excuse for committing an error and thus should not be reprimanded at all; or it may reveal that the error was the fault of someone other than the worker, who had seemed at first sight to be guilty.

Second, before administering a reprimand, the foreman should always give the worker a chance to explain his side of the picture. This calls to mind the familiar story of the worker who stopped to sit down during working hours and was immediately approached by a supervisor. "You're fired!" exclaimed the foreman. "You can't fire me," replied the worker, "I work for the telephone company." The foreman can avoid much embarrassment by getting the complete story. Even though an employee has made an error and should be reprimanded for it, the foreman is likely to feel quite foolish if he issues a severe reprimand and receives such a reply as, "I know that I am at fault, but my little girl at home is extremely ill and I have been up all night with her."

The third, and perhaps most important, step which a foreman should take before he reprimands a worker is to "cool off." A worker frequently has no chance to express himself and may let a minor irritation rankle and swell inside himself until it becomes a major grievance. He hides his feelings as long as possible and then finally explodes to his foreman in an angry outburst. The natural reaction of the foreman is to become angry too and to engage in a loud and heated argument with the worker. That is the easiest attitude to adopt. However, the foreman must realize, by placing himself in the worker's shoes, that under the same circumstances

he too would probably be extremely angry and be likely to lose his head. Consequently, it is of the utmost importance that the foreman remain cool in discussing the matter with the worker. If necessary, he should say nothing at the time an error is made, but wait until he has cooled off sufficiently to discuss the matter in a calm and intelligent way.

Only when these three steps have been taken should the foreman proceed with his reprimand. If an investigation of the facts and the worker's explanation of what happened seems to indicate that a reprimand is still warranted, and if the foreman has undergone a cooling-off period, he should then observe two principles in administering the reprimand:

A reprimand should always be issued privately to the worker, not in front of his fellow employees and not in a loud and conspicuous manner. The worker who is "bawled out" in front of his fellow workers suffers injury to his pride and loses his respect for his foreman.

A reprimand should be administered as impersonally as possible. Thus, the job which has been performed poorly should be the subject of the reprimand—not the worker himself. It reflects poor judgment to berate the worker with the charge that *he* is incompetent; the desired result can be better achieved by calling his attention objectively to the mistakes he has made rather than by criticizing the man himself. If the foreman will then offer a constructive suggestion on how to avoid a recurrence of the error, the sting of the reprimand can be softened.

GIVING CREDIT, RECOGNITION AND PRAISE

Too many foremen and supervisors subscribe to the philosophy that "the absence of criticism constitutes praise." The inadequacy of this doctrine will be attested by any foreman who occasionally gives his crew a pat on the back. A few words of praise will do wonders in building morale among a group of men. Each one likes to be complimented for doing a good job. However, the praise which a foreman gives his men must be wholly sincere. Insincere praise is worse than no praise at all. The worker quickly recognizes it for what it is and becomes antagonistic rather than cooperative. A foreman who praises a worker insincerely is like a husband who, when asked by his wife if he still loves her, glances up from his newspaper momentarily and replies: "Yes, of course I do, dear. I see that two more Jap subs were sunk today."

ANSWERING EMPLOYEES' QUESTIONS

The foreman who has learned how to lead his men and command their respect will go out of his way to answer questions in their minds about the company's product and about their jobs, and will encourage employees to ask questions. He will avoid a reply such as, "It is against company

policy," because he realizes that that answer is unsatisfactory since the employee is really interested in knowing the reasons underlying company policies. The foreman who strives to be a real leader would also know something about social security legislation, labor laws, war bond drives, and other matters in which the employees are currently interested. If the supervisor finds himself unable to answer a question, he should consider it his duty to seek the answer elsewhere and to convey the information to the employee who requested it.

MAKING AND KEEPING PROMISES

The foreman who bears in mind the two fundamental principles of supervision—i.e., that he represents the company, and that he should constantly put himself in the worker's shoes—will be cautious in making promises. It is easy for a foreman to tell a worker in an offhand manner that he will transfer him to another job, report his excused absence, recommend him for a raise in three weeks, or obtain some information for him. It is equally easy for the foreman to forget his promise or to think that the worker will forget all about it. *The worker is not going to forget that promise.* He will be greatly disappointed if the promise is not kept and will lose respect for the foreman. Many exit interviews today reveal that the reason why an employee is quitting is because some foreman failed to fulfil a promise.

It behooves a foreman, therefore, to exercise care in making promises. He should never promise a worker a transfer, raise, or anything else, no matter how trivial, unless he has the power and the intention to make good his promise. He should never make a promise he does not intend to keep, because he thereby breaks faith with the worker. But a foreman must go farther than this: he must make a note of promises he has made and follow them up to be certain they are kept. Unfulfilled promises destroy employee morale.

HANDLING GRIEVANCES

Whenever any group of men work together, there is likely to arise in some of them a feeling of personal injustice and wrong, accompanied by irritation and animosity. One of the greatest defects in our present industrial structure is the lack of sufficient opportunity for the common worker to communicate with his foreman or with management. If he has what he considers to be a grievance against the organization, there should be ample opportunity to present his case to management and to have the grievance settled. Frequently, however, there is no established channel of communication, and the grievance assumes a false importance out of proportion to its real significance.

The foreman who is approached by an employee with a grievance should know how to handle that grievance. The employee may be angry. If so, the foreman must curb any tendency to become angry too. Any discussion of the grievance should be made with a great deal of light and with as little heat as possible. One way of reducing the heat in the worker's attitude is to induce him to repeat his complaint three or four times. The chances are that the employee has built up a strong case by turning it over time and time again in his mind. He has prepared a short speech to impress the foreman with the seriousness of his grievance. However, if he is requested to repeat the story, he must seek a new method of telling it, and he discovers that it thus loses much of its effectiveness. By the time the complaint has been restated several times, it is not unlikely that the worker will view it in the light of its true importance rather than in the light which prolonged reflection has cast upon it. When the foreman has listened to the complaint two or three times and repeats it back to the worker, the latter is likely to declare: "It certainly does sound insignificant now. In fact, it seems almost silly." Yet the worst thing a foreman can do is underestimate the importance which a worker attaches to a grievance, whether it is a mythical grievance or a real one. When a group of employees threatens to strike because milk is no longer sold on the rolling cafeteria, it is evident that complaints deemed minor by management may be considered extremely serious by the workers.

Frequently an objective discussion of a grievance proves it to be real and justified. If the foreman or the company representative says, "The damage has already been done; it is water over the dam, and we can do nothing about it," he should substantiate his statement with facts and persuade the worker that it is honestly impossible to do anything. In most cases, however, it *is* possible to do *something*, and it will merely aggravate a bad situation to tell the worker nothing can be done if the worker feels that something *can* be done.

Whenever management refuses to *make an effort* to remedy an inequity, the worker has a right to become embittered. If a foreman feels that a worker's grievance is justified, he should keep faith with the man and accord him full support in obtaining a settlement from the proper person. An injustice is not nearly so hard to bear if the worker knows that his immediate superior is aware of the situation and thinks enough of him to give him complete backing in effecting a fair adjustment.

MAINTAINING DISCIPLINE

The foreman who would command respect and be a leader of his men must do a good job of maintaining discipline. He must be absolutely

impartial in the administration of rules established for the operation of his department. He must follow up the orders which he gives and know whether a man is entitled to praise or reprimand; he must be aware of the efficiency of each man; and he must understand each worker as an individual.

The most difficult task for some foremen is to maintain the proper balance between reprimands and praise. A department in which men can fail to do their jobs properly and not be reprimanded is a department where discipline does not exist. On the other hand, a foreman who constantly criticizes and rarely praises fails as a leader. Both criticism and praise should be resorted to, but they should be employed judiciously and at the right times.

THESE ARE THE GOALS

The foreman who observes all the principles of supervision set forth in this paper would have to be almost superhuman. These are ideals and goals toward which supervisors should strive. Hardly any man could be expected to conform to them in every instance and at all times. These principles are not new theories; they represent a well-founded philosophy. They apply common sense to the problems of supervision. They are restated here for the benefit of the many foremen in war plants who have been newly placed in supervisory positions and heretofore have had no occasion to study methods of leadership.

An effective way of impressing proper principles upon a group of foremen is to have them discuss cases illustrating good and bad methods of supervision. Usually a foremanship training course in human relations need but call these ideas to the attention of the foremen to have them readily accepted. If this practice is followed in war plants generally, it should substantially increase worker satisfaction; and hand in hand with increased worker satisfaction goes increased production of the weapons of war, which is our common goal.

NOTE: Reprints of this article for use in supervisory training are available at cost from the American Management Association. For quantity prices address AMA headquarters.

INTRODUCING THE NEW EMPLOYEE TO THE JOB

With workforces expanding to an unprecedented extent, there is an unfortunate tendency among many companies to speed up the induction process and rely on hit-or-miss methods of introducing the new employees to their jobs. Such companies fail to realize that the future worth of employees is largely determined by the type of adjustment which they make during this impressionable period. The following article, adapted from material prepared by Training Within Industry, outlines a model systematized induction program and indicates the modified procedures to be followed in inducting rehired or transferred employees.

A NEW place to work means adjustment for any individual. It is easy for the new man to jump to false conclusions. The supervisor has an excellent chance, during this impressionable period, to establish a good relationship with the employee and see that he receives accurate information about the place where he is working. He can get the new man off to the right start.

This process of making the new employee feel at home, often called induction, takes place at the same time as job instruction, and both have the same aim—making the new man a productive part of the business. It should not be assumed that instruction will do both jobs. The success of instruction may depend on the quality of the introduction process.

PROCESS OF INTRODUCING EMPLOYEES

Some of the questions that arise in introducing employees are: Can all employees be inducted alike? What attention should be given to a transferred or rehired employee as compared to a new employee? Is a systematized plan desirable? Many of these questions can be answered only in terms of conditions in the organization. In general, however, the process of introduction may be considered under these headings:

1. Handling the initial interview.
2. Providing the employee with information about the company.
3. Providing the employee with information about his work.
4. Assisting the employee to adjust to his fellow-workers.

These phases of the introduction process are interrelated and, therefore, should not be regarded just as a sequence of steps. To remind the supervisor of the information to be given and to enable him to know what he has covered when it is necessary to contact the employee at intervals, a check-list may be provided (see Exhibit A).

1. ***Handling the Initial Interview.*** The supervisor's first approach to the employee will have considerable influence on his future attitude toward the supervisor and the company. The supervisor should draw upon his

experience in dealing with men and be careful to make no statements and take no steps which can be misinterpreted. The supervisor should use this opportunity to begin to foster a friendly attitude which, of course, should carry over beyond the induction period.

Many supervisors follow these interviewing steps:

a. Beforehand, the supervisor considers what he already knows about the new employee and tries to picture how he would feel if he were in his shoes. His objective is to make the employee feel that in him he has a supervisor who will consider impartially but sympathetically whatever problem he may wish to discuss.

b. If conditions permit, the new employee is brought to the supervisor's desk, where he is greeted and asked to sit down. In any event, the best conditions for an uninterrupted interview are sought.

c. To arrive at common ground and establish mutual interests, the employee is asked a question or two on matters of general concern. This usually induces the employee to talk and enables the supervisor to learn more about him without appearing inquisitive. He may have to try several different tacks to establish mutual understanding and avoid putting the employee on the defensive.

d. The supervisor decides the proper time to start giving the employee information about the company and the employee's job. The employee himself may lead into this through questions.

e. In closing the interview, the supervisor gives the employee to feel that he can come back at any time.

2. ***Providing the Employee with Information About the Company in Which He Works.*** The employee must be provided with accurate information about the company and its policies, as early as practicable after he reports to work, in small enough segments to be retained. It is desirable to see him several times at intervals during the first two or three days. One of the main objectives is to make the employee feel proud of the company and to give him an appreciation of its policies and what they should mean to him. The new employee should be urged, when he wants to know more, to come to the same source for information—the first-line supervisor.

When possible, some information should be given to the employee by his department chief, in order to widen the employee's knowledge of the organization and to give the department chief an additional means of knowing his workers. This also provides the chief with an opportunity for checking on the introduction of the employee. There should, however, be an understanding among those concerned as to precisely what information the department chief will give the employee. It is desirable for the depart-

Exhibit A

Induction Guide

For..... (Employee's Name)..... Employed ..... (Date).....	Information Given By	Date
1. Has he read the employees' handbook?		
2. Is he familiar with safety rules, practices, and the reporting of accidents? Where to get first-aid treatment? Has he read the safety handbook?		
3. Have factory regulations—smoking, fire drills, absences, etc.—been explained?		
4. Does he know the location of lockers and washrooms?		
5. Does he know location of cafeteria? Lunch and rest-period times?		
6. Was he informed about time-clock and clock-card rules?		
7. Does he understand about passes—temporary, permanent, package, etc.?		
8. Does he know organization of department, division and shop? Names of supervisors?		
9. Does he know what the department manufactures?		
10. Has he been introduced to fellow-workers, and told about company activities?		
11. Have company personnel policies been explained?		
12. Does he know how his pay is figured—piece-rate, incentives, learning period, overtime, payroll deductions, etc.?		
13. Does he understand the benefit or insurance plan?		
14. Does he know where to get information? Help?		

ment chief to provide that information on which it is wished to place special emphasis.

The supervisor is the best judge of the extent to which he should make a detailed explanation of any single item. Ordinarily an outline of the broad objectives of the company programs, what they mean to the employee, and how he can take advantage of them will suffice. Care should be exercised to see that the employee is not subjected to pressure to participate in company social or service activities.

3. ***Providing the Employee with Information About His Work.*** A distinction should be made between this phase of the induction process and job instruction. The objective here is to assist the employee to adjust to his new situation by providing him with background information. Much of this information (such as location of the lockers) will of course have to be given shortly after he reports for work. Information about the work is of immediate concern, and should be given clearly. If the employee is new to the job, he may be unfamiliar with terminology. He should be encouraged to ask questions. Most new employees desire to make a good impression and are afraid of not "catching on" rapidly.

4. ***Assisting the Employee to Adjust Himself to His Fellow-workers.*** Most individuals who are new to an organization are concerned over how they will be accepted by their fellow-workers. Getting off to the right start with other workers depends greatly upon the employee himself, but the supervisor can see that the new employee is introduced to those in the vicinity of his workplace; and, in some instances, it may be desirable to tell the employee a few interesting things about his fellow-workers. When it is possible to make a choice of several work locations for the new employee, the supervisor can give consideration to the interests, sex, age and other characteristics of those near whom he might be placed. It might, in a few instances, even be desirable to revise a seating arrangement so that the new employee will be located in a group where he will get along satisfactorily.

Most supervisors, through knowing their subordinates, develop a "feel" for such conditions. Adjustment of the employee to his working group will not ordinarily be accomplished in a single step, but will involve many follow-ups over an extended period of time. It has been said, probably rightly, that the supervisor's work in helping employees adjust to each other is never finished.

SYSTEMATIZING THE INTRODUCTION PROCESS

When new employees are being inducted into an organization, some systematized procedure should be adopted. This may involve doing certain

things on certain days, or it may be nothing more than delegating responsibility for inducting the new employees.

For any induction procedure, a plan is advisable—and it must be a plan made from the viewpoint of the employee's needs. These points should be considered:

Purpose

1. What should the new employee get from the introduction process?
2. What should the company get?

Content

1. What routines and regulations must be explained at once? What, later?
2. What company information must be given?

Method

1. Is process on individual or group basis?
2. Will a plant or department tour be included?

Responsibility

1. What is the supervisor's part?
2. What is the employment office's part?
3. Who will coordinate and check complete coverage?

Timing

1. What is the order in which information is to be given?
2. How much shall be given at one time?

By making use of the guide which appears as Exhibit A, a plan suitable to the organization can be formulated in a short time. Such a plan can probably be best prepared through the collaborative efforts of the supervisors in the department where it is to be used. A detailed time schedule, such as is shown in Exhibit B, may be desirable.

After a guide has been drawn up, it is good practice to set down the elementary information needed. For example, not until the new man knows the location of the time-clock, how it is operated, where to put his card, the occasions on which he is required to register, the rules about registering only his own card, and what to do if he makes a mistake, can the subject of time-clocks be considered adequately covered.

It has been estimated that from six to 12 hours is needed to provide the employee with basic information about the company and his job. It is obvious that during periods of rapid expansion supervisors may not be able to devote so much time to many employees individually. Although personal contact with the new employee is highly desirable, it may be necessary during such periods to adopt group methods to convey some of the information about the company and the employee's work to new employees.

Exhibit B

Sample Induction Outline

When and Where	What and How	By Whom
First Day		
1. On arrival in plant	1. Introduction to working supervisor	1. By person who did hiring
2. On arrival in department (15 minutes)	2. Information needed in daily routine a. Any information he may need on getting to and from work, parking regulations, etc. b. Starting time, lunch period, quitting time, hours per week c. Review of compensation items (when he will be paid, where, how, how much) d. Opportunity for questions	2. By supervisor
3. Following preliminary interview (one-half hour)	3. Meeting other workers, getting to know layout of building a. Trip through department, with general explanation of product b. Show him where he is to work and have him meet neighboring workers c. Show him his locker and location of washrooms d. Show him the time-clock, his card, and explain regulations e. Tell him about any special rules on smoking, leaving department, etc.	3. By supervisor or group leader
4. Following 3 till noon	4. Job instruction	4. By person who is to handle training
5. Noon	5. Show location of cafeteria and eat lunch with new man a. Show him noon recreation facilities b. Introduce him to others	5. Neighboring worker

When and Where	What and How	By Whom
6. After lunch till half hour before quitting time	6. Job instruction	6. Trainer
7. Half hour before closing	7. Give pass, explain use and regulation in case of absence. Give booklet of rules, regulations and policies to be read at home	7. Supervisor
Second Day		
1. At a convenient time (one-half hour)	1. Review booklet of rules and regulations, policies a. to see that he understands subjects covered in booklet b. to give opportunity to ask questions	1. Supervisor
2. At a convenient time (15 minutes)	2. Check through job with safety engineer and review policies and procedures on safety	2. Safety engineer
Within First Week	1. Meet with other new men from other departments a. Tour plant b. Have organization setup described c. Have mutual benefit and other organization plans described	1. Personnel department
Fifth Day	1. Interview with supervisor—off job a. Find out what he is thinking b. Clear up any misunderstandings c. Give opportunity for questions	1. Supervisor

Regardless of the number of new employees, however, the supervisor should not fail to make some personal contact with each of them as early as possible, doing what he can to assist them in feeling at home.

INDUCTING THE TRANSFERRED OR REHIRED EMPLOYEE

It is obvious that neither as much information nor attention will ordinarily have to be given to the rehired or transferred employee as to the newly hired employee. Sometimes, however, there has been a failure to explain clearly to an employee the reasons for his transfer—an item of great concern to him. Although this is the responsibility of his former supervisors and the employment office, his new supervisor can well afford to make sure that he understands, and that any doubts he may have are expressed and discussed as early as possible. It should be remembered that this employee will have to pass through an adjustment or orientation period similar to that of the new employee. Supervisors should not take it for granted that these employees are fully familiar with the company or their work; yet to assume they are totally ignorant of the organization may provoke resentment. In addition to general information, the rehired or transferred employee usually wants to know, promptly, what grade of work he is assigned to, what his rate and probable earnings will be, what shift he is to be working, and similar information that shows him at once "where he stands."

SUMMARY

In introducing an employee, the supervisor obtains background information about the man besides giving him information and assistance. The supervisor needs to know his men, just as the men need to know the department so that they will feel at home. It is during this period of adjustment that the employee's future worth to the company is largely determined. The employee's immediate supervisor should see that a proper adjustment is made, regardless of whether complete authority has been delegated to him or a systematized plan, involving the employment office, has been adopted. The supervisor's success in introducing employees will depend largely on the care and insight with which he approaches this work. His experience in dealing with people should be constantly drawn upon for help.

▶ THE NUMBER of children under 16 working in industry or agriculture has more than doubled since 1940. In that year there were about 209,000; the estimated number is now 580,000.

—*Information Service* 5/29/43

War Plant Plague

A $7,000,000 itch is impeding war production because factory laborers don't know how to wash their hands.

Industrial dermatitis, an inflammation of arms, hands and thighs, causes more absenteeism in some war plants than do accidents, according to industrial physicians, who estimate that it costs the country $7,000,000 a year in lost working time.

These "oil pimples" (that's what the workers call them) result from the clogging of the pores by machine oils. This became so serious a problem in a Wisconsin plant that the company had to shut down one shift. In a Milwaukee factory, 37 out of 200 skilled machinists had to take from one to three weeks off recently to cure the disease.

The solution to the problem, according to plant doctors, lies in persuading husky machine operators to indulge in washroom "make-up"—proper cleansing and the use of skin creams to replace the natural oils which are removed by abrasive soaps.

The increase in the disease has been noted chiefly in plants converted from peacetime production to the manufacture of war goods. Inexperienced men and women have been added to the payrolls by the thousands, and even experienced mechanics have been forced to adapt themselves to new materials and new lubricants.

Most of the trouble, medical men say, is because the workers don't know how to wash their hands. They either underdo it or they overdo it. In a hurry to get home after knocking off work, the men and women wash rapidly, leaving oils and grease on their hands and arms. The oil, even though sterile, causes inflammation when it is worked into open pores and hair follicles.

Even if the workers wash thoroughly they are susceptible, for the abrasive soaps and cleansing compounds which they use to cut the grease also strips the skin of its natural protective oils.

The cure is as simple as the cause—more careful washing and restoration of the skin's protective oils. Many plants which have suffered from a high rate of itch absenteeism have purchased recommended soaps and have put up washroom posters urging workers to take more time in cleaning up.

Studies of the dermatitis show that blondes suffer more than brunettes because of their more sensitive skin. The trouble shows up more among women than men.

—*The Wall Street Journal* 6/16/43

Developments in Part-time Work

RECENT developments in part-time and split-shift work (which is fast becoming known as the "Victory Shift"):

In California, Lockheed-Vega is experimenting with movie actors as half-shift workers; one member of each two-man team will work on the production line from 4 to 8 p.m., the other from 8:30 to 12:30.

In Buffalo, Bell Aircraft has instituted a special shift for part-time workers who can put in three eight-hour days on the line per week.

In Nappanee, Ind., Vitreous Steel Products Co. has organized a system under which 20 local residents stand on call to fill in on evening work whenever the plant needs them. The men, who are called from once to five times weekly, include the local undertaker, a gas station owner, and a schoolteacher.

—*Modern Industry* 5/15/43

DESIGN FOR THE FUTURE OF INDUSTRIAL RELATIONS

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What major labor trends now under way are shaping the future pattern of industrial relations? Will management or labor hold the reins in the postwar years? In the following paper, presented recently before the American Iron and Steel Institute, Mr. Huston offers a number of specific forecasts on the postwar character of industrial relations. While generally taking a sanguine view, the author maintains that, in the last analysis, the pattern of industrial relations will be determined by the attitudes and actions of employers and by how well they fulfil their responsibilities.

THE character of industrial relations during the years to come will be largely influenced by the prevailing political and economic environment. Thus to determine what type of relations will exist and what types of policies should be adopted to meet the existing relationships, we must first attempt to predict our probable environment.

The first question to be raised about the environment naturally will be: How much further will the pendulum swing toward limitation by organized labor of those prerogatives traditionally regarded as belonging to management?

The answer seems fairly obvious. Already a reaction against the activities of a few extremists in organized labor is under way. Unmistakable indications of this change can be noted in Congress and the legislatures. The House and Senate have passed the Smith-Connally anti-strike measure. More significant, Arkansas, Colorado, Florida, Kansas, Michigan, Minnesota, South Dakota, Texas and Idaho have this year passed measures drastically restricting picketing or imposing new strict controls over union finances and strike activities. Without doubt these laws, all passed within a few weeks, constitute definite evidence of a reaction against some of the abuses practiced by these extremists.

On the other hand, is there anything in the picture as yet to indicate that we face the type of countertrend that followed the last World War, when the membership of the American Federation of Labor declined almost 30 per cent—from 4,078,000 in 1920 to 2,803,000 in 1926? I do not believe so.

At least three important reasons why the pendulum will not swing so far in the opposite direction as it did in the early 1920's may be cited. In the first place, there are now 11,000,000 or 12,000,000 union members, as

compared to a little over 4,000,000 in 1920. This tripling of union membership naturally gives the unions greater strength with which to maintain their power and prestige. Secondly, closed and union shop contracts now cover about 6,000,000 union members, while maintenance-of-membership contracts cover about 2,000,000 more. These contracts should enable the unions to build up large financial reserves to tide them through a period of reaction and to combat opposition. (For example, the November 30, 1942, report of the United Steelworkers of America shows that this union had at that time accumulated a cash surplus of almost $2,000,000; and this surplus has since increased further.) Finally, it should be noted that the Wagner Act guarantees unions great economic and political freedom to maintain and further develop their organizations.

In all this I assume that the leaders of organized labor will permit no serious excesses such as would lead to repeal of the Wagner Act or the enactment of more stringent legislation than has been adopted by Congress or the state legislatures. It must not be forgotten that the British general strike of 1926 led to adoption of the Trade Union Act in England that same year. A great industry-wide strike in this country might have a similar effect and force the pendulum to swing all the way over to rigid control of unions.

MANAGEMENT RESPONSIBILITIES

But we must not for a moment lose sight of the fact that the future environment of industrial relations will also depend upon the attitudes and actions of employers. If industry *cannot* fulfil its primary responsibilities—important among which is that of striving by every means to maintain a high level of employment after the war—then we may be sure that the pendulum will swing the other way! That employment must be maintained is recognized by all those leaders of business associated with the Committee for Economic Development. A recent statement of that Committee tersely declares: "Jobs for these returning soldiers and sailors and war workers must be provided either through the resources and ingenuity of business, or the government will be forced to take over."

A forecast of the probable volume of jobs after the war is not a task for this discussion. A glance at the signposts, however, presents a conflicting picture. On the one hand, a recent Department of Commerce study* suggests that the durable goods industries might operate in 1946 at a rate just 100 per cent *higher* than in 1940. On the other hand there have been gloomy predictions that, because we have doubled our supply of machine

* *Markets After the War*, by S. Morris Livingston. Bureau of Foreign and Domestic Commerce, Department of Commerce, Washington, D. C., 1943. 43 pages plus charts.

tools in the past three years and are thus accentuating the long-term trend toward fewer man-hours per unit of production, we face mass unemployment despite the steadily accumulating backlogs of demand for durable goods of all types.

Those of us who have a thoroughgoing confidence in the ingenuity and planning ability of American industry take the more favorable view. Our optimism is based partly on the belief that the transition to peacetime industrial activity will occur gradually, minimizing the immediate employment problem in the conversion period.

But there is still another equally important responsibility of management that must be fulfilled before we can undertake with any reasonable assurance of success the task of mapping the course of industrial relations. I refer to the necessity of observing industrial relations policies that will satisfy the fundamental desires of the workers, that will make men and women say, "This is a good place to work; I like it here."

Too often in recent years management has allowed occurrences in the field of collective bargaining to obscure the need for giving sufficient attention to policies in the broader field of industrial relations. Some of us may have felt that the unionization of a plant has signified the failure of all earlier industrial relations policies and techniques. Those who have felt that way failed to perceive that unionization apparently satisfied some fundamental desires of the workers which were ignored in existing policies or in their administration, but that it did not necessarily constitute a repudiation of those policies.

Recently a steel company executive, walking through his plant, was approached by a union committeeman who wanted to make a suggestion. The committeeman introduced the suggestion by saying, "Now, Mr. Jones, I'm a good union man, but I'm also a good company man and don't like to see such and such a practice going on because it wastes the company's money."

There is food for thought in that committeeman's comment. It suggests that an opportunity exists for industry—the opportunity to fulfil by its own policies and their administration the fundamental desires of the workers in such a way that no executive need ask the question, "Has our men's loyalty been lost to the unions?"

INDUSTRIAL RELATIONS COMES OF AGE

I believe we are entering a new era of industrial relations.

During the last World War and afterward, emphasis in industrial relations was placed on such factors as employee safety, health, recreation and various welfare plans. The 1930's ushered in a new period, when collec-

tive bargaining, fostered and fertilized by the Wagner Act, became the predominant phase of industrial relations and overshadowed welfare activities. In this period the adoption of many important policies, unfortunately, appears to have revolved around one or two questions.

In many non-union plants, the question underlying the adoption of industrial relations policies was: "Will this help prevent unionization?" At plants under contract with a union, the question was: "Will this cause trouble with the union or give it an advantage in bargaining?" As we all know, this period was marked by the breaking down and repairing of management's industrial relations fences.

The new era we are now entering upon will be different. The determination of industrial relations policies and their administration will undoubtedly be influenced by two viewpoints. On the one hand, the company will be interested in preserving and enhancing its economic position; at the same time, the unions will be anxious to insure their own security. Indicative of the unions' attitude is the fact that companies are now asked to recognize the union not only on behalf of the company's employees but also on behalf of the union itself.

Industry will increasingly adjust its industrial relations policies and their administration in accordance with the answers to such questions as the following:

"Do they satisfy a fundamental desire of the men?"

"Do they help to increase productivity?"

"Do they make the workers say, 'This is a good place to work'?"

Questions such as these will be the criteria of policy determination, rather than whether the policies accord the union an undue advantage. Similarly, unions will have become more mature; consequently, they will be unlikely to oppose policies merely because they are favored by or favorable to the company, but instead will actually support measures that strengthen the company's position if such measures do not conflict with union security.

WORKERS' FUNDAMENTAL DESIRES

Mention has been made of some of the fundamental desires of workers that will have to be satisfied. What are they?

We have but to consider how we feel about our own work and to listen to the men in the shop to know what these desires are: The worker wants to feel at home in his job, which means that he appreciates a friendly welcome when he is first employed; and he desires a sound and simple program of instruction in his duties. He wants recognition for a job well done and for himself as an individual. He wants to feel that his work is

important and that it is helpful to others. He seeks a living for himself and his family. He expects and wants promotions whenever his work entitles him to them. He wants to have faith in top management and to feel that top executives are doing a good job of conducting the business. He is concerned about his health and naturally desires to avoid accidents. Finally, and perhaps underlying all these, he wants security in his job.

When we scrutinize this list of basic worker desires, we naturally perceive certain elements that should be included in any progressive industrial relations program.

Fulfilment of employees' desires implies not only the adoption of sound industrial relations policies, but also the effective utilization of education and information to make sure that the company's management and its policies are not misunderstood. Countless experiences could be cited to show the value of correct information in preventing misunderstanding and in clearing up grievances that exist. For example, there are many cases of plants whose employees believed their companies' profits were excessive until the companies began publishing financial reports. An increasing number of corporations are also finding that a booklet outlining the company's history, employee activities and benefits, and the working regulations is an effective aid in introducing the employees to the company. The transmission of such basic policy information to employees is still one of the most pressing needs of American business.

Let us now attempt some specific forecasts on the future of industrial relations. Granting the assumptions about political and economic trends already made—that the pendulum has swung toward restraints on the few extremists of organized labor, and that industry will fulfil both its responsibility of providing employment after the war and its responsibility of fostering sound industrial relations policies—here are a few predictions:

Forecast No. 1—Maintenance of Membership. In all likelihood, maintenance-of-membership contracts will remain in effect if a reasonably high level of employment is maintained. There have been no impressive indications that individual employees object to these clauses, and they will probably not object to them so long as their earnings remain fairly good. Certainly the unions will oppose any movement jeopardizing their security. Candidly, it is difficult to imagine even a conservative administration supporting the employer who tries to vitiate such a fundamental privilege which the union has enjoyed for some time and is ready to strike to retain. However, the reaction already evident in certain state legislation may lead to the inclusion of provisions in maintenance-of-membership clauses to insure sanctity of the contract.

Forecast No. 2—Industry-wide Bargaining. Industry-wide bargaining on a local or national basis was being engaged in before the war by such industries as coal, railways, the building trades, printing, wearing apparel, hosiery, shipping, and glass pottery. During the war an impetus has been lent industry-wide bargaining by the War Labor Board's wage stabilization programs for the building trades, the Detroit Tool and Die Plants, the Metropolitan Milk Distributors, the non-ferrous metals industry, the trucking industries, the West Coast aircraft industry, the West Coast lumber industry, etc. In some of these cases, the administrative body established by the Board to enforce the stabilization agreement is empowered to deal with all types of labor disputes as well as with wage stabilization. And, of course, the shipbuilding stabilization agreement constitutes industry-wide bargaining clear across the board. We seem headed squarely toward a pattern of bargaining that has long been followed in Britain and Sweden.

Forecast No. 3—Unionization of Foremen. The reversal of the National Labor Relations Board's decision on organization of foremen may diminish interest in this question. However, the mere fact that organization of this group became an issue at all suggests to management the advisability of ascertaining that foremen are well informed and that they realize they are part of management. Increasing attention to, and consideration of, foremen may be expected of all progressive companies.

Forecast No. 4—Grievance Procedure. As times goes by, we are likely to regard employee grievance procedures as a medium through which we can become better acquainted with the desires of our workers and of the unions. In fact, there is already evidence of an inclination to refer to the grievance procedure by some such term as "problem adjustment procedure." Since relationships between industry and organized labor have in most cases passed the organization stage, we should expect settlement of petty grievances in the early stages of the grievance procedure. Union and management representatives should be able to devote more time at joint sessions to policies and plans for improving over-all industrial relations.

Forecast No. 5—Selection and Training Procedures. With the application of promotion, seniority, layoff and discharge provisions of union contracts throughout industry and the adoption of experience rating in unemployment insurance by a growing number of states, there is a clear trend in the direction of stabilized employment and decreased turnover. Consequently, industry is already giving, and will doubtless give more, close attention to selection and training procedures. Increased emphasis is being accorded throughout industry to aptitude tests, merit rating systems, comprehensive medical examinations, and improved personnel records. Furthermore, training activities are becoming more specific and detailed in

their objectives. Training staffs may be counted on to coordinate their activities more closely with those of the employment, industrial engineering, and regular supervisory staffs in order to make more effective use of manpower and keep the worker satisfied by placing him on a job where he can develop his talents to the fullest extent possible.

Forecast No. 6—Job Evaluation and Wage and Salary Administration. The proper classification of skills for production and maintenance jobs and for salaried positions is receiving more widespread attention and will doubtless be subscribed to more generally. Upgrading will thereby be conducted in as scientific a fashion as possible, and the individual employee will be provided with a clearer picture of his normal line of promotion. Furthermore, an effort will be made to eliminate causes of friction in wage and salary administration and to arrive at the combination of factors which will best insure fair recognition of merit and experience.

A commendable industry-wide step in this direction is currently being taken by the American Iron and Steel Institute's Subcommittee on Job Description and Classification, which is preparing a *Dictionary of Job Titles in the Steel Industry.*

Forecast No. 7—Employee Safety, Health and Security Policies. Enactment of cradle-to-the-grave social security has been proposed for the early postwar years. Such legislation, however, by no means argues for the elimination of company safety, health and security plans. Regardless of what the government may or may not do, it is still the obligation of industry to provide the personalized types of company services that make employees feel truly, "This is a good company to work for."

Forecast No. 8—Company Information to Employees and Community. We industrial relations men have for some time realized that it is not enough merely to attempt to carry out sound industrial relations policies. We have recognized that employees must be informed of the existence of those policies and the reasons for them. More recently, we have found it desirable, in addition, to transmit this information to employees' families and to the communities in which they live. In the future, more and more companies will undoubtedly adopt carefully thought-out and expanded information programs to explain to employees and to the communities the companies' policies and the "how" and "why" of their operations. Furthermore, an increased number of concerns will probably utilize attitude surveys to ascertain whether the information they are disseminating is really getting across to the employees.

* * * * * *

Thus we attempt to project the future pattern of industrial relations on a background of present-day trends. The fundamental policies that

have proved sound through the past will continue to guide us in the future. It is in their application to problems of the future that management's judgment and vision will be challenged. As in the past, we confidently expect the executives of industry to meet each situation squarely and to create good industrial relations while they are doing so.

Check Sheet on Postwar Employment

A JOB for every man and woman who wants to work after the war is the first objective of postwar planning. Most of these jobs can and will be furnished by business organizations. Obviously, business organizations will be in a better position to provide jobs if they plan *now* for action after the war has been won.

The information called for in the following check sheet* should be of help to business management in doing that planning:

1. Number of employees before the war. This may be based on estimated normal business activity, but it is preferable to use the figure for the end of 1939, or some other year before wartime expansion occurred.
   Male
   Female
   Total
2. Number of employees now or at some foreseeable wartime peak.
   Date
   Male
   Female
   Total
3. Number of former employees currently in the armed forces.
   Male
   Female
   Total
4. If you are currently employing more people than at the pre-war level, from where did the additional employees come?

	Male	Female	Total
(a) People formerly employed in non-war industries			
(b) From the ranks of the unemployed			
(c) From retirement			
(d) From homes (i.e., principally women who before the war were not considered part of the labor force)			
(e) From school			
(f) Other			

NOTE: The number of additional employees includes both the net increase in the working force and those hired to replace former employees currently in the armed forces. The number of *additional* employees, therefore, is the difference between No. 2 and No. 1, *plus* No. 3.

* Prepared by the Massachusetts Committee on Post-War Readjustment.

(*Continued on next page*)

5. How many employees would be likely to leave your company willingly or voluntarily after victory?

	Male	Female	Total
(a) To return to their previous employment			
(b) To retire			
(c) To go back to home-making			
(d) To school			
(e) Other			

NOTE: The fact that some former employees currently in the armed forces may remain in service, may seek other jobs, or may be forced to retire could be noted here or in another similar tabulation.

6. At the present time, how many people do you estimate you will be able to employ?

	Male	Female	Total
(a) Immediately after the war			
(b) At your postwar level of activity			

7. How soon after victory do you think your company will attain its new postwar level of activity?
8. Any comments about your company's ability to give jobs after the war, with special reference to the date after victory when jobs will be available?

Special "Sit-Stand" Seats Boost Production 32 Per Cent

PROVIDING special "sit-stand" seats increased production approximately 32 per cent in one metal-polishing unit, according to a posture bulletin released by the Women's Bureau of the U. S. Department of Labor. Muscular ability, it is reported, increased by 6 per cent to 15 per cent when workers were permitted to sit and stand alternately.

Common faults of seats in industrial plants include lack of back support or foot rest, non-adjustable height, poor shape, lack of knee room under machine or work table, and insufficient space between seats.

Standing is particularly harmful to women, it is pointed out, because of its aggravation of temporary disabilities and women's susceptibility to varicose veins.

Management is advised to make job analyses preliminary to purchasing seats. Sliding seats have been devised for workers who tend several machines or move along a table, and conveyors and turntables can be adapted to eliminate walking. The work level should be constructed at average standing height, and the chair should be adjusted to a height at which the elbows are the same distance from the floor whether the worker is standing or sitting. If careful planning cannot provide for alternate standing and sitting positions, rest periods should invariably be allowed.

—*Supervision* 6/43

BUDGETING LABOR NEEDS

In a period of labor shortages and rapid turnover, the formal labor budget becomes an indispensable tool for personnel executives. Such a budget provides an accurate index both of available skills and of personnel needs which must be met by new hirings. This article, based in part on a bulletin of the University of Michigan's Bureau of Industrial Relations, describes the steps to be taken in budgeting labor requirements and offers a suggested form for the budget.

THE personnel manager who knows his labor requirements earlier than his competitor can (1) obtain the best skilled workers available and (2) organize a proper training program soon enough to prevent shortages of particular skills. The most effective means of determining manpower requirements is a formal labor budget estimating personnel needs by occupational classifications.

Some planning or time study departments prepare the labor budget. If the necessary records are not available in these departments, the personnel department should estimate labor needs by departments and occupations.

One company's procedure in drawing up the estimates follows:

a. The estimates are made for two general classifications, the "productive" and the "non-productive" departments.

b. If the operation is performed by machine, the number of machine-hours required per week is divided by the number of hours in the workweek for the given operation. This indicates the *number of men required* for that operation.

c. *A constant percentage* figure is used to determine the labor requirements *for tasks not involving the use of machines.* For instance, a constant of 5 per cent may be set for supervision and a constant of 7 per cent for inspection on each shift worked.

If present production work is similar to production work prior to the war, these constant percentages may be derived from the company's own experience. If the work is dissimilar, however, reasonably accurate percentages for "non-productive" manpower needs can be derived from the records of other war contractors doing similar work.

Because of the rapidly shrinking labor market, this labor budget should be revised *monthly.*

Such an estimate is an essential aid in obtaining necessary personnel either by upgrading or by hiring, and it also helps in providing facilities, arranging shifts, and in anticipating transportation and housing problems.

BUDGETING LABOR FOR NEW OCCUPATIONS

Companies producing munitions for the first time are revising production methods, and consequently are setting up new jobs. Many operations are being simplified and broken down into more specialized types of work. Accordingly, the labor budget must be compiled in terms of the *jobs to be*, not the jobs that were.

Job simplification is an important means of releasing men to the armed services and filling their places with less skilled men and women.

Job simplification facilitates this task by: (1) permitting the hiring of untrained help; (2) adapting jobs for women workers; and (3) speeding the upgrading of present personnel in order to utilize all available skills.

The methods department usually is in charge of job simplification. Cooperation between the methods department and the employment department is essential. The methods used in production must be adapted to the labor supply available. Furthermore, modifications of methods which change the qualifications required of employees justify new job titles and corresponding changes in the labor budget.

To avoid misunderstanding and resentment, the absolute—and patriotic—need for job simplification must be explained and *sold* to management, supervisors and workers.

Management will be the easiest to "sell," because the dollars-and-cents value of job simplification can be readily proved.

The supervisors will be more reluctant. Some foremen still insist on having "all-around" men on many jobs. They should be shown that they must use highly specialized workers because of the shortage of versatile men and the lack of time to train such men.

Workers will be the hardest to convince. Their objections are quite understandable. Simplification reduces the skill required. Hence the worker feels that his bargaining power is proportionately weakened. Simplification often results in the use of women replacements, and this, the worker feels, will permanently reduce the demand for the skills he has developed.

ESTIMATING NUMBERS AVAILABLE IN PRESENT ORGANIZATION

The existing organization is the major source of manpower for your future needs. But the pattern of the organization probably is not the same as the pattern of those needs. Individual workers with suitable backgrounds and aptitudes will have to be prepared and transferred to meet the developing requirements. These manpower resources should be matched against the new requirements so that the *net* specific needs can be estimated.

Clearly, what is called for first in this connection is an index of all available skills in the organization.

Three methods are being used to uncover such skills:

a. *Present personnel records* are analyzed. An examination of personnel records might reveal men who could be transferred to new war jobs immediately.

b. *Occupational questionnaires* are employed to uncover hidden skills. Each employee is asked to list his work experience of the past 10 years. Worker cooperation in completing these questionnaires is encouraged by an accompanying mimeographed explanation of the use to which the records will be put.

The resulting questionnaires may overstate or understate the workers' experience. Two things should be done to make them most useful:

1. Careful wording of the questionnaire, which can be arrived at by trying a specimen form with a few employees, then interviewing them to note whether any items were misunderstood.
2. Interviewing the workers who state that they are qualified for a specific type of work. These interviews are necessary to determine the workers' eligibility.

c. *The factory bulletin boards* may carry notices of openings in particular jobs.

ADJUSTING ESTIMATES FOR LABOR TURNOVER

The estimate of *net* specific labor needs of a company for a given month should be adjusted upward to take account of labor turnover. Different turnover percentages may suitably be applied to the budget for men, for women, or for critical occupational groups.

A suggested form for a labor budget appears on the following page.

Monthly turnover rates per 100 employees are published regularly in the *Monthly Labor Review,* issued by the U. S. Department of Labor. For example, the following rates were reported for the Automobile Parts and Equipment Industry in April, 1942:

*Separation Rates**	
Quit	2.72
Discharge	.55
Layoff	1.70
Miscellaneous	.92**
Total	5.89

The draft is recognized as a factor of such primary importance in the months ahead that the turnover rate under this heading, particularly where many young men are employed, should be definitely increased in the calculations.

* *Monthly Labor Review,* July, 1943, p. 159.
** Military separations included.

WORKFORCE ADJUSTMENTS FOR PERIOD FROM ..... (Date) **TO** ..... (Date)

DEPARTMENT .....

Occupational Group	Force B. of Period	Estimated Losses During Period			Col. 2 Less Col. 5	Force Needed End of Period	Forecast (Without Adjustments)		(Captions Continued)
		Sel. Serv.	Turnover	Total			Surplus	Shortage	
1	2	3	4	5	6	7	8 +	9 —	

Transfer In			Hire			(Captions Continued)
Number	From Occupation	Approx. Date	Net Number	Gross Number	Approx. Date	
10	11	12	13 +	14	15	

Transfer Out			Layoff		
Number	To Occupation	Approx. Date	Number	Approx. Date	
16 —	17	18	19 —	20	

ABBREVIATIONS

Column 2. Force, Beginning of Period.

3. Estimated Losses to Selective Service.

7. Force Needed, End of Period (Based on Production Schedule).

8, 9. Forecast (Without Adjustments), i.e., net difference between the remainder of the present force at the end of the period and labor needs at that time. Figures in Column 8 are plus quantities, Column 9 are minus quantities. Remaining columns show adjustments necessary to absorb the surplus or fill the shortage forecasted in these columns.

10. Number of individuals to be transferred in (a plus quantity).

11. Occupation from which individuals are to be transferred. Make corresponding entry in "Transfer Out" column for that occupation.

12. Approximate Date. Consider necessary training time before individuals will be fully competent.

13. Net Number to Be Hired. A plus quantity. To be determined after considering Columns 8 or 9, 10, 16, and possibly 19.

14. Gross Number to Be Hired. Usually this quantity is larger than that in Column 13, because some of those hired will quit or be unsuccessful.

15. Approximate Date when individuals are to be hired. This should take account of training time.

16, 17, 18. Entries here are the reverse of those in Columns 10, 11 and 12. If a surplus is indicated in Column 8, enter in these columns the number of individuals to be transferred out, to what occupations, and approximate dates of transfer. Then make corresponding entries for proper occupations in Columns 10, 11, 12. Figures in Column 16 are minus quantities.

19, 20. If a surplus is indicated in Column 8 and this surplus cannot be transferred, enter in these columns number to be laid off and approximate date. Figures in Column 19 are minus quantities.

With respect to each occupation, the plus and minus quantities in Columns 8, 9, 10, 13, 16 and 19 should cancel. (Figure in Column 14 is estimated on the basis of figure in Column 13.)

HOW TO COMPUTE LABOR TURNOVER

To compute labor turnover, a card covering the following items should be kept for each worker:

(a) Name
(b) Department
(c) Occupation
(d) Sex
(e) Date of Birth
(f) Date of Entry into Firm
(g) Date of Leaving
(h) Cause of Leaving

It may be convenient for firms that desire to keep records of sickness-absenteeism to include the necessary data on the same form. These data will be as follows:

(a) Date of first day of illness
(b) Date of return
(c) Number of working days lost
(d) Nature of illness or accident

From the cards ascertain the number of men and women who have left during the unit of time selected. Estimate the average number employed during the period. Divide the first by the second and express the result as a percentage. For example, if 43 men and 226 women left during the year 1942, and the average number employed was 316 men and 964 women, then 43 divided by 316 multiplied by 100, and 226 divided by 964 multiplied by 100, would give the gross rates, i.e., 13.6 per cent and 23.4 per cent respectively. This is the most important rate to work out.

Workers hired for a limited time should not be included.

Rates may also be computed for special groups of employees, e.g., age groups, thus:

Age Groups	*Number on Staff*		*Number of Leavers*		*Wastage Rate*	
	M.	W.	M.	W.	M.	W.
					%	%
16 to 20	800	900	100	200	12.5	22.2
20 to 30*	1000	1200	150	300	15.0	25.0
30 to 40*	1000	600	100	60	10.0	10.0
40+	800	200	20	20	2.5	10.0

* Where numbers are sufficiently large, five-year groupings might be substituted.

NOTE: This section on labor turnover has been abstracted from *Labour Turnover and How to Reduce It*, a publication of the Industrial Welfare Society, London, England.

The cards will contain such particulars as the following:

	Entered	*Left*
A.B.	4/5/39	6/7/39
C.D.	8/9/39	9/8/40
E.F.	9/10/39	

This means that A.B. left after two months' service, that C.D. left after 11 months, and that E.F. was still at work 12 months from his date of entrance. Enter on each card the number of months' service, 0 signifying that the worker left with less than one month's service, 1 that he had less than two months', etc. If a worker has not left, this might be indicated by enclosing the time up to date in brackets, thus (13). If we are interested particularly in the first year of service, all cards of leavers beyond 12 months will be added to those who have not left.

Suppose there are 1,000 entrants, of whom 180 leave within the year. Thus 820 will begin a second year.

The leavers are as follows: 50 left with less than one month's service, i.e., 5 per cent. Then 1,000—50=950 begin the next month, and of these 30 leave $\left(\frac{30}{950}=3.2 \text{ per cent}\right)$, and 920 remain to begin the next month.

In the table below, the completed details are shown:

Length of Service in Months	*Number Present*	*Number Leaving*	*Number Leaving as a Percentage of Those Present*
0	1,000	50	5.0
1	950	30	3.2
2	920	20	2.2
3	900	12	1.3
4	888	11	1.2
5	877	11	1.3
6	866	10	1.2
7	856	9	1.1
8	847	8	0.9
9	839	7	0.8
10	832	6	0.7
11	826	6	0.7
12	820	—	—

Where the numbers are small, a classification into longer periods might be made. It is nonetheless advisable to consider the leavers during the first month separately. This rate, and that for the next three months, might be taken as a measure of the wastage for the group.

It will be found of practical value, where the numbers are sufficiently large, to compute and enter on each leaver's card the length of his service (thus, two months written 2/12, two years and seven months written as a

and 7/12). At the end of the official year, the leavers could be classified by length of service, to make it possible to determine, for example, how many left after 20 years' service, how many after five years', and how many after a month's. This distribution of leavers could be compared with the composition of the entire staff on some specific date.

Eye Protection in War Industry

THOSE of us who strive for safety in war industries fully realize the emphasis that must be placed on protecting the eyes of workers. With industry stepping up production on an ever-increasing scale, expanding operations to include new processes, and taking on millions of workers who are unaccustomed to an industrial environment, the problem of eye protection offers a real challenge.

Our industrial workers have the faculty of responding favorably to demands made upon them, and if we exercise sound judgment in our efforts to impress them with the need for protecting their eyes we can expect every cooperation. To this end, the Army Safety Program has been designed to assist industry in every possible way.

It is generally agreed that nearly all eye injuries can be prevented by the use of goggles. Since eye injuries may be caused in many different ways, it is difficult to say when a worker is safe without goggles or some other suitable eye-protective device. The records show that industrial employees have lost one and even both eyes while performing work which is ordinarily considered safe. Then, again, there are cases where workers have experienced serious eye injuries merely walking through a plant.

There is a growing tendency among safety engineers to feel that the wearing of goggles by all persons entering the manufacturing areas of plants should be a required safety rule. This does not seem unreasonable when we stop to consider the unnecessary suffering and loss of production time that can be avoided with such little effort.

Because the ultimate in eye protection will be attained through use of goggles, reference to other eye-protective devices will be limited in this discussion. It should not be inferred, however, that these other devices do not have any part to play in solving the eye injury problem. Face shields, safety glass shields over grinding wheels, and other such equipment must not be overlooked.

It is not enough to say that goggles should be worn by industrial workers. A careful analysis must be made of the eye hazards involved, and on the basis of this analysis the type of goggles which will afford maximum protection must be prescribed. It then becomes necessary to institute a sincere program of acquainting employees with the hazards and impressing them with the risk they take if they work without protecting their eyes.

The American Standard Safety Code for the Protection of Heads, Eyes and Respiratory Organs, formulated by a national committee of experts working under the procedure of the American Standards Association, is considered the best standard on goggles. The code outlines a number of processes on which eye protection should be required, and groups goggles into types according to hazards. The types include: impact, dust, splash, fumes, gases, and glare and injurious light rays.

All the types of goggles mentioned vary somewhat in design, and this further emphasizes the need for proper selection of goggles. In *Safe Practices Pamphlet No. 14*, published by the National Safety Council, the following factors are considered as essential in selecting the type of goggles to be worn on any specific job: frames, lens containers, connector between lens containers, side shields, temple, headbands, etc., and lenses and cover glasses.

While it has been indicated that all persons entering the manufacturing areas of plants should be required to wear goggles, this seems too much to hope for in this period of national emergency. For this reason, we must follow the next best procedure and concentrate on operations which are known to offer special eye hazards. In dealing with those operations, we must consider not only the worker who is performing the hazardous job but other employees working in the vicinity as well.

Space does not permit discussion of all the jobs presenting special eye hazards. Because industrial processes are continually being changed to meet the demands of current production schedules, it is imperative that the protection of the worker receive careful consideration as the machinery is being set up. If there is any indication that an eye hazard is present, provision should be made to supply adequate protective devices.

The operation of grinding still involves a heavy eye hazard despite the fact that much effort has been made to confine the hot, fast-moving, sharp particles. Experience shows that such operations as grinding, chipping, cutting, and work involving the handling of acids and alkalies, molten metal, and dust-producing materials require eye protection.

Frequently we find workers engaged in hazardous tasks wearing prescribed protective devices while other employees in the immediate vicinity are wholly unprotected. This is particularly true of grinding and chipping with the aid of portable hand and power tools, and of welding. These are jobs that call for the use of protective partitions or curtains to safeguard fellow workers.

High-speed work on lathes, drill presses and similar machines has been the source of much concern. Here it is well to adopt the practice of protecting the eyes if the work is performed anywhere near face level. Furthermore, steps should be taken to confine the metal turnings as much as possible in order to protect other employees in the vicinity.

Once the proper type of goggles has been determined, the matter of getting the worker to wear them must be considered. Since this is the most important step in the solution of the problem, it requires much deliberation.

Experience has proved that only fair response can be expected when management rules that goggles must be worn and imposes a penalty if a worker is found not wearing them. It requires more than a rule and penalties to obtain cooperation from workers who are putting in long hours to produce needed war materials. A straightforward, honest appeal seems to be the logical and sensible approach.

The old proverb, "An ounce of prevention is worth a pound of cure," can be applied in this instance. Through the media of educational material, group meetings, and personal interviews, employees can be made to realize that they are the ones who will benefit from the protection afforded by goggles. In this connection, persons in a supervisory capacity should set an example by wearing goggles themselves.

Where it is at all practical, it is best to supply each employee with his or her own goggles. If individual goggle cases are not available, it is good practice to provide cabinets in convenient locations and thus lessen the chances of damage. These cabinets, incidentally, will give the plant safety engineer a chance to inspect goggles periodically and check on their use. The practice of keeping goggles in a tool box or bench drawer should be discouraged.

We can expect better success in the use of goggles if we see to it that they fit properly. Nearly all the good goggles on the market today are built for comfort as well as protection, and time should be taken to adjust them properly. If a worker ordinarily wears glasses to correct some eye defect, it is false economy to give him a pair of plain goggles. He will not be able to see properly and is likely to injure himself or damage material. Goggles with lenses ground to a particular employee's prescription should be made available.

—From an address by J. Harvey Meikle before the One-Day Institute, "Vision in War Industry," sponsored by The American Optometric Association, The Pennsylvania Optometric Association, and The Pennsylvania State College of Optometry.

RECORD-KEEPING FOR ABSENCE CONTROL

One of the chief obstacles to the control of absenteeism is the poverty of recorded data of value for purposes of research and analysis. Relatively few managements have set down the facts and figures of non-attendance in such a way as to suggest definite lines of attack on the problem. For example, it is difficult to determine accurately how much absenteeism is due to circumstances beyond the control of employees, how much arises from necessity, and how much results from personal maladjustments. In the following memorandum, the British Ministry of Labour and National Service outlines a method of recording and analyzing absences which, with suitable modifications, might be profitably adopted by firms in this country.

AS is now generally known, absence from work and persistent lateness without reasonable excuse have been made direct offenses against the British law in the case of employment scheduled under the Essential Work Orders, but the proportion of absenteeism for which legal proceedings are the only appropriate remedy has been small in relation to the total. The great majority of those who absent themselves from work or are late in arriving either have what appears to them to be a good reason, or are merely guilty of carelessness or indifference. In either case, their attendance can be improved if the right approach is made.

The Ministry of Labour and National Service is convinced that a solution to the problem of avoidable absence from work is more likely to be found by those establishments which seek that solution within themselves than by those which tend to rely more on external powers of discipline or punishment. The recent amendment to the Essential Work (General Provisions) Order recognized this fact by providing for the reference of cases to an appropriate plant committee or other joint body (where one exists) before any decision to prosecute is taken.

RECENT INVESTIGATIONS

Recent investigations have been made into absenteeism at a number of factories, and the following excerpt is quoted from the report of the investigators:

> To understand the problem of absenteeism, it is necessary to appreciate the tremendous sacrifices made by such a large proportion of the workers in accepting what amounts to a destruction of their home life. Home life has always been a person's own very private business and has been the ultimate object and reward of his labor. Many government departments, societies and individuals deal with "Welfare." The matters dealt with under any "welfare" effort become very trivial when compared with a person's home life. A married woman with a house, a husband and children already has a full-time job which is difficult to carry out in these days. Yet thousands of them

are working long hours in factories. They are trying to do two full-time jobs. If they can carry on with a mere half-day per week off the ordinary factory hours, they are achieving something marvelous. It is time somebody said more about women's effort on these lines, and more about the arrangements which ought to be made to enable them to carry on. It is not only married women's home lives which have been completely upset, although they are the group needing most consideration. Men's home lives are disorganized by the fact that their wives, daughters, parents, other relations and neighbors are all going to work or because they have been sent right away from their families to work. These major facts must be taken into consideration in forming opinions on absenteeism and in seeking remedies. They should not be confused with "domestic difficulties" but recognized as a tremendous sacrifice made by an enormous number of workpeople to help the war effort.

The investigations already conducted have revealed that the causes of absenteeism, broadly speaking, are common to all factories; it is rare to find any special cause peculiar to one establishment. The incidence of the several causes does vary, of course, between factory and factory, depending on local circumstances—transportation facilities, proportion of married women employed, etc. Some of the common causes are: (a) sickness and injury of the worker himself or herself, or of some member of the family for whom the worker has to care; (b) shopping difficulties; (c) the requirements of the family and home—care of children, preparation of meals, cleaning the house, etc.; and (d) lassitude or fatigue due to long hours combined with long journeys. In other cases, absence is due primarily to "feelings" as distinct from "facts." For example, workers in a permanently "blacked out" factory complain that they get a feeling of depression because of the absence of sunlight; they also are inclined to believe that proper ventilation is lacking since they do not feel the movement of air on their faces. If they are employed in a factory which is subject to "idle time," they feel that their taking an odd day off now and again can't make any difference.

But perhaps the most significant of what may be described as psychological causes is the lack of real interest in the job and a lack of conviction of its importance and urgency, due often to ignorance. It has probably been inevitable that the great expansion of factories and the concentration on matters of organization should have created a tremendous gulf between those who *know* and those who don't. Frequently even foremen are not fully conscious of the importance of their department in the war effort. However, with the increasing stability now being attained, it is essential that a determined effort be made by those who *know* to enlighten those who don't. It is too readily assumed that workers generally are concerned only with the monetary incentive, whereas experience shows that workers in general respond in increasing degree to the incentive of interest when they are made aware of the part their particular jobs play in the final product.

The Ministry of Labour and National Service is convinced that a real effort by industrial management to attack these psychological causes of absenteeism is the greatest single contribution that can be made to a solution of the problem.

PLANNED HOURS OF WORK

There is, however, another important contribution which managements can make, and that is to arrange the "planned" hours of work of individuals or of groups of employees with some regard to their personal circumstances. It is, of course, recognized that this may be possible only to a limited extent without incurring other more than counterbalancing disadvantages. The value of doing so, however, where it can reasonably be done, is obvious.

At present, hours of work are too often decided more or less for the factory as a whole, regardless of the fact that their full and consistent observance by a substantial proportion of the workers is not reasonably to be expected—for example, by married women with young children, or by workers whose daily traveling time is 1½ or 2 hours each way. The result of the existing policy is that such individuals who occasionally absent themselves are merely stigmatized as absentees. This result tends to follow on an undue adherence to the normal peacetime rule that working hours are fixed by and for the factory and that everyone who works there is expected to observe them. In present circumstances, much greater flexibility of organization is needed.

The Ministry of Labour and National Service has urged managements to give attention to this problem. Much could probably be done by redistributing the work and/or the labor force of the factory so that those who need special working hours would be so employed as not to disorganize the work of others.

DIRECTION OF CONTROL

The adaptation of the industrial machine to meet the reasonable requirements of the human beings who operate that machine is essential if the optimum national output is to be maintained and anything approaching war weariness is to be discouraged. Measures such as are suggested would not only constitute a sound long-term policy of maximum production but would naturally lead to the placing of absenteeism in its true perspective and thereby render it more readily controllable.

The first step in the direction of such control is for one person of senior status in each factory (assisted as may be necessary) and capable of a tactful and understanding approach to the individual, to be assigned specifically to deal with all absences, and for the existence of that arrangement to be made thoroughly known throughout the factory. That same person

should be responsible also for establishing a coordinated procedure for dealing with applications for leave of absence. Where a personnel or labor manager is employed, he or she will obviously be the most suitable person to deal with these matters.

The second step is to insure that the extent of absenteeism is known, together with its causes. To assist management, the Ministry of Labour and National Service has provided a "model" form of record, a copy of which is reproduced here (pages 45-46) together with "Notes for Guidance" in its completion (Appendix I). This record is primarily for the individual firm's own use, its purpose not being merely statistical, however, but rather to make it possible for the various factors responsible for absenteeism at the particular factory to be assessed and dealt with as a domestic matter. It may be helpful to indicate briefly some of the ways in which the information disclosed by such records can be used to deal effectively with absenteeism. Notes of these will be found in Appendix II.

It is of primary importance that in their efforts to deal with absenteeism and persistent lateness—whether culpable or not—managements should maintain close consultation with the representatives of the workers, through the plant committee, the Production Advisory Committee, or other appropriate channel. The factory's records of absence and all relevant data in possession of the management should be placed regularly before those representatives so that they may be stimulated to cooperate intelligently and wholeheartedly in the task of reducing absenteeism to the lowest possible level.

The workers' representatives have a special responsibility for convincing the thoughtless minority of their fellow-workers that absence from work, whether during normal or overtime hours, except for unavoidable reasons, not only impedes the nation's war effort but is grossly unfair to the great majority, who do their part with diligence and enthusiasm despite long hours and the personal and domestic inconvenience involved.

Appendix I

MAINTENANCE OF RECORD OF ABSENCE FROM WORK
(Including late arrival)

NOTES FOR GUIDANCE

1. The essential data consists of:
   - (a) a chronological record in hours;
   - (b) an analysis of the stated causes;
   - (c) a monthly summary;
   - (d) a record of warnings issued.
2. Different-colored cards are available for men and women.
   - (a) The card is to be prepared by the employer, *only* in respect to latecomers or other absentees.

NAME..... DEPT..... CHECK Nº.....

YEAR 194.../194.... ABSENCE RECORD

HOURS ABSENT SHOWN:- { Sickness (or Accident)..S *Black.* Leave other than recognised Holidays..L *Black.*
Reasonable Excuse....E *Black..* Without reasonable Excuse... *Red (Late Arrival-Red encircled: (½))*

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Dates warned for bad timekeeping or absenteeism.

OVER

Form A/PL 106—Men (buff card)

Form A/PL 106—Women (yellow card)

MONTHLY SUMMARY

MONTH	HOURS OF ABSENCE						Total Absence (incl. Late Arrival)	Total Planned Hours (incl. overtime)	% lost of Planned Hours (incl overtime)	Nº of Occasions of Late Arrival under Col (4)	Note of action taken
	Sickness or Accident		Leave other than recognised Holidays	With reasonable Excuse	Without reasonable Excuse						
	Certified	Uncertified			Late Arrival	Other					
	(1)		(2)	(3)	(4)		(5)	(6)	(7)	(8)	(9)
TOTAL											

(b) The entries to be made depend on the particular circumstances of each absence as elicited by interview or otherwise, and will consist of the appropriate symbol—S., E. or L.—with the number of hours (or fraction of an hour) lost or, in the case of time lost without reasonable excuse, the number of hours (or fraction of an hour) *only, but in red.* Thus a quick inspection will readily reveal all culpable absence. In the case of late arrival, the entry should consist of the actual amount of the lateness, and not of the time charged against the individual for wages or other purposes. (The differing practice of firms in their treatment of lateness makes this the only method of insuring a uniform basis for the record.) *Lateness of less than three minutes should be excluded.*

(c) It is not practicable to issue an exhaustive list of "excuses" which should be accepted as "reasonable." Reliance must be placed on the judgment of the employer's representative who is made responsible for the maintenance of the absence record. It is, however, important that care be exercised in this connection; undue leniency will impair the value of the record as a check on culpable absence, while undue strictness will tend to obscure real difficulties with which workers may be faced, e.g., in connection with transportation facilities; the length of the daily journey; domestic difficulties, such as illness of children, or shopping; fatigue consequent on long hours; etc.

(d) The subdivision of column (1) of the summary is designed to show the extent to which absence stated to be due to sickness is covered by a medical certificate. While it is appreciated that normally absences of one or two days' duration are not covered by medical certificates, as the worker does not in those circumstances consult a doctor, yet supervision must be maintained over the frequency of such uncertified sicknesses.

(e) Column (2) of the summary should exclude the annual vacation and recognized holidays, but should show, for example, leave to a married woman when her husband is on leave from the armed services.

(f) The subdivision of column (4) is to show hours lost owing to late arrival, as distinct from other absence without reasonable excuse.

(g) Columns (5) and (6) will assist the firm to compute its total absence and also to assess the record of each individual. The "total hours planned" should be the number planned for normal working by the particular individual or department. Casual or emergency overtime in excess of "planned" hours should be excluded.

(h) Column (7) will require to be computed when a case is reported either to the plant committee or to the National Service Officer.

(i) Column (8) is to be used to show the number of *occasions* of late arrival without reasonable excuse.

(In the assessment of "persistent lateness," the total time lost is naturally of less significance than the frequency of the offense.)

(j) Column (9) is for use, for example, when a case is reported to the "appropriate" committee and/or to the National Service Officer, and the decision taken on such report may also be briefly noted therein.

3. The necessary steps to be taken by the employer are:

(a) The preparation of a daily list of absentees (including late arrivals) or, alternatively, the segregation of their clock cards.

(b) The interviewing of these workers on, or as soon as possible after, their arrival

or return (as the case may be) and the securing of a statement giving the reason for the lateness or absence.

(c) The preparation of a record card (if one does not already exist for the individual in question in the "Live Register").

(d) The maintenance of the "Live Register" either by department, shift, clock number or name, as may be most convenient.

(e) A regular and frequent scrutiny of the "Live Register" to decide which, if any, cases are to be reported to the plant committee or the National Service Officer, as may be appropriate.

(f) Disclosure of the record of an individual on request, to the person concerned, to an officer of the appropriate employees' organization or trade union; also to the "appropriate" committee and the National Service Officer, as may be required.

Appendix II

SUGGESTIONS FOR FOLLOW-UP ACTION ON RECORDS

(*a*) ***Sickness***

If the rate of sickness absence is persistently high throughout the plant as a whole or in any particular department, the welfare or medical officer of the firm should analyze the diseases giving rise to the absence and consider whether there is anything in the processes or working conditions which may be responsible for abnormal sickness, or whether this is due to excessively long hours, inadequate diet, or other causes susceptible of remedy. Careful attention in this way to the causes of sickness can result in the saving of many man-hours of lost productive time.

Similarly, if a particular individual shows a very high rate of sickness absence, it will probably be worth while to submit him to medical examination in order to get at the root of the trouble.

(*b*) ***Accidents***

In the same way, a high accident rate requires detailed investigation and the application of appropriate remedies, including the stimulation, through plant safety committees and other means of propaganda, of a greater attention to accident prevention and safety-first measures on the part of the workpeople themselves and of foremen.

(*c*) ***Absence with Reasonable Excuse***

It is desirable to analyze, from time to time, the absences for which a "reasonable excuse" has been given, in order to see whether the volume of such absence can be reduced by suitable administrative action: For example, local transport facilities may require investigation with a view to improvement; if many women are absent for domestic reasons, the provision of additional nurseries and other facilities for the care of children may need to be considered; while absences attributed to shopping difficulties may be reduced by arranging suitable leaves of absence at definite times or by securing some other appropriate local arrangement.

(*d*) ***Absence and Persistent Lateness Without Reasonable Excuse***

It is only absence classified under this head which is an offense punishable under the Essential Work Order. The greatest care should be taken to insure that any absences for which there is no reasonable excuse are properly classified under this heading. Many cases of absence without reasonable excuse or of persistent lateness can be effectively dealt with if the individual concerned is interviewed by the official appointed to deal with

absences. Careful questioning will often reveal the real reason for the worker's unsatisfactory behavior and induce a changed attitude which may be reflected both in better attendance and in more satisfactory work generally. Where such action is unsuccessful, the next step should be to report the facts to the "appropriate" committee (where one exists) so that the offender's fellow-workers may deal with the matter. Their collective opinion will often influence a worker who remains quite impervious to individual warnings from the management.

If these steps fail, a really incorrigible offender will be reported to the National Service Officer with a view to prosecution.

IMPROVING JOB EFFICIENCY THROUGH SUPPLEMENTARY TRAINING

By R. B. CRIBBS
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Off-the-job classes frequently offer the best means of providing intensive instruction at the specific points where it is most needed. In this article Mr. Cribbs shows how such subjects as blueprint reading and shop mathematics may be broken down into their various components to insure that the men in each department learn exactly what they need to know and waste no time on elements which will be of little value to them in their work. He also outlines a comprehensive supplementary training program, describes how it may be utilized to build morale, and suggests a method of evaluating the results.

THE demands of war production have had a tremendous effect on the industrial process over the past two years; and, like other phases of that process, training has undergone some revolutionary changes. Because of the sudden shift of personnel from non-factory and non-defense occupations to defense jobs, it is essential that large numbers of people be educated in new occupations. Not infrequently, too, old employees must be re-educated to new machinery, equipment, tools and methods. Thus more people need concentrated training than ever before, and in many ways this need cannot be met by on-the-job programs. It is at this point that we find it necessary to develop what we call "related training."

"Training" implies a planned method of developing a new man for a specific job—or of improving the work performance of an old employee. Related training is concerned with promoting the efficiency of individuals at specific points which cannot be adequately covered on the job; and with

providing general information which cannot otherwise be obtained easily.

The objective of such a program is twofold: (1) to contribute to job efficiency; and (2) to create job enthusiasm through the development of activating interests, personal group relationships, and understanding of departmental and inter-departmental job relationships. The end-product of both is—smoothly flowing production.

ORGANIZATION

Selling management is the first step in the total organization of related training; and if we can sell our ideas on the basis of sound, workable objectives, our job will be simplified. It is best to do this through the use of graphs and charts which show the exact requirements in terms of numbers of jobs, men, experience, new equipment, etc.

Selling supervision is step number two. Sometimes the "old-liners" are not receptive to new ideas; but if we can get them to discuss their problems and difficulties, we can lead them into the desired field of thought. It is best to see all the supervisors individually, then re-work some of their ideas in conference sessions. We can tell them also what other companies are doing and, if necessary, enlist management's active help. Eventually it will be possible to show them specifically how related training will benefit them.

Locating specific needs is a logical third step. It is one thing to say that men need blueprint reading on the job, another to decide which of its elements they must know. In selecting the subject matter, we use the check-off blank shown on the opposite page. Listing the department and prints on the margin at the left and lining the element breakdown across the top, we check off the needs as indicated. The X's get attention in class; the O's are passed by. With the foremen's help, this type of check-list can be used in organizing all forms of instruction.

Selling the men is a necessary fourth step. The best approach is through their supervisors, but personal interviews with key men will be helpful also. Posters and personal notes are useful in pointing up the advantages of a particular type of instruction.

Checking facilities which are needed in the proposed educational schedule is a "must." We should have adequate table space for the men, and the room should be well lighted. Materials, such as chalk, blackboards, erasers, pencils, paper, models, etc., must be provided.

Enlisting instructors is quite a job, and must be done carefully. As a general rule, it is desirable to use practical shop men, even though they may be lacking in teaching technique. If the trainees have all reached the same level of experience, it may be convenient to have one skilled in-

	Scale Drawings	Two-View Drawings	Three-View Drawings	Materials in Section	Half Section	Finish All Over	Counter Sinks	Slots and Dovetails	Chamfering	Screw Threads	Class of Fit—Bolt Heads	Bevels—Knurling	Necking or Grooving	Draft Angles	Fillets and Rounds
MAINTENANCE COURSE															
Print #1	O	O	X	X	O	X	X	X	X	X	X	X	X	O	X
Print #2	O	O	X	X	O	X	X	X	X	X	X	X	X	O	X
Print #3	O	O	X	X	O	X	X	X	X	X	X	X	X	O	X
DIE SHOP COURSE															
Print #1	O	X	O	X	X	X	O	O	O	O	O	O	X	X	X
Print #2	O	X	O	X	X	X	O	O	O	O	O	O	X	X	X
Print #3	O	X	O	X	X	X	O	O	O	O	O	O	X	X	X
Print #4	O	X	O	X	X	X	O	O	O	O	O	O	X	X	X

PARTIAL EXAMPLE OF BREAKDOWN USED IN ORGANIZING MATERIAL FOR BLUEPRINT COURSE

structor for all the groups, and it is sound practice to provide a practical adviser for him.

Other matters to be considered are:

Forms: We ourselves use three: (a) attendance; (b) reminder; and (c) evaluation. These are not too detailed, and they can be developed to suit the needs of the program.

Hours: Our experience has shown that an hour and a half is about the most practical length for a class session. Classes held immediately after or immediately before working hours are the most convenient for the men.

Size of groups: Fifteen seems to be the ideal number for a student group, since small classes permit of personalized teaching. In pressure cases, however, it is possible to carry more.

Payment: We have tried both payment and non-payment for class attendance; and for all practical purposes, we feel, the unpaid groups get just as much out of the instruction as those who are paid. Moreover, we have found that attendance is better among the unpaid groups. Thus we are now operating on a non-paying basis.

ADMINISTRATION

EDUCATIONAL FACTORS

No educational program can function in its true sense unless it is administered with a knowledge of certain educational factors. We need to know what effective learning is and what facilitates it; having this information, we must put it to work in an intelligent way.

Motivation is a vital factor which must be present if the classwork is to have any meaning. The participants must want the information they are to receive, and it is up to us to stimulate their desire for it. Here the logical approach is through the supervision and the group itself. We must enlist the help of an enthusiastic leader in getting the men to see the advantages of self-improvement, self-expression, enjoyment, and management approval to be obtained from the courses. If the group attitude is right, the program will function because of the practical interest inherent in it. Every man likes to feel that his job is important, and a class experience based on his job is a very positive way of promoting that feeling.

Then, as the man progresses, the degree of success achieved will affect both his attitude and his learning. *The law of effect* states that acts which lead to satisfaction are readily learned and those which lead to dissatisfaction are readily dropped. This means that we must provide satisfactory experiences. Both vocabulary and material must be kept within the trainee's understanding, for one thing, and we must remember that words of praise will help to create a feeling of satisfaction.

In addition, we shall undoubtedly find that among many individuals certain incorrect job methods have become habitual, and one of our objectives will be to correct this condition. According to the *law of disuse or recency,* a man can dispense with bad habits by disuse. He can also stimulate the recurrence of right acts by *practice* establishing proper connections between stimulus and response. If we take advantage of these facts, we can make our training really useful. A man should *learn by doing,* and he should be made to utilize the *law of use and frequency* by performing the right act or thinking in the right way again and again until the proper pathways have been irrevocably established. Related training possesses excellent possibilities in this respect.

If we help our venture along through adaptation of *partial activity,* we are using another educational factor of vital significance. In administering our course, we should seek to eliminate every single irrelevant factor, for progressive education strives for *practicability;* and we must make every effort to put all the knowledge acquired to work. Good learning also demands that we appeal to as many senses as possible, which means the utilization of visual, auditory and sensory material.

PROGRAM CONTENT

Our classes are organized on the basis of need and with regard for all the previously mentioned facts. (While the program described here is not one which will fit every situation, it offers a good example of related training subject matter.) We analyzed our various jobs and discovered that shop mathematics and blueprint reading were the basic needs—at least 800 men in six departments required instruction in these two subjects alone. Further investigation disclosed that many men wanted more information on short-cut methods of job procedure and, most important, many wanted to know what their jobs were "all about" and how they were related to other jobs in other departments.

Mathematics: In breaking down our subject matter, we found that the machine shop and maintenance departments required complete coverage of common fractions, decimal fractions, measurement, symbolism, equations, exponents, formulas, ratio and proportion, relationships and indirect measure. The die shop men needed less basic work, so we decided to incorporate their mathematics training with their work on shop methods and blueprint reading. Finish, forge inspection, and heat treat inspection workers had no use for some elements of measuring—such as allowances for reaming, allowances for turning and milling, gage block combinations, and micrometer reading to ten-thousandths of an inch—or for equations,

exponents, formulas, and relationships. This allowed us to shorten their courses considerably.

For this work we used an instruction manual which covered all the desired principles. To make the work practical, we arranged class and home study problems based on job needs. The classwork included lectures using job models, individual blackboard work, and group discussion.

Blueprint Reading: Blueprint material was broken down in the same way for finish, maintenance, die shop, heat treat inspection and forge inspection. Using our beginners' manual of blueprint reading, we eliminated scale drawings and slots and dovetails for the finish, heat treat and forge inspection groups. The maintenance department did not need scale drawings, two-view drawings, or half sections, and the die shop could dispense with scale drawings, slots and dovetails, drilled holes, countersinks, chamfers, screwheads, bolt heads and bevels.

For this instruction we used models, layout blocks, slide films, class discussion, blackboard work, and lectures as well. Our practical applications were made with actual shop prints.

Shop Methods: Unlike many general education groups, the classes in shop methods are practical and specific; and it is possible to keep them this way because the enrollees have very definite interests, needs, and qualifications. These are determined through contacts with foremen, workers, and specialists. Our die shop course includes: (1) information on die blocks, such as method of manufacture, heat treatment, application of types, chemistry, trimming die stock and punches, and reasons for die breakage; (2) understanding of costs involved in production with emphasis on tools, wages, equipment, etc.; (3) appreciation of metal and grain flow with introduction to definitions, dangers, corrections, shapes, readings and hammer difficulties; (4) knowledge of the forging defects created by faulty dies, with an extensive treatment of cold shuts, ruptures, undersize, oversize, match lines, caves, edger horn breakages, sticking, cracks, flashing and grooving; (5) full interpretation of die block layouts, covering factors determining die block sizes, match lines and their importance, location of shanks and dowels, locations of depressions, layouts of breakdowns, rollers, splits, trim and punch and press dies, also tools, tolerances, etc., (this layout work is done in class on a wooden die block from a regular shop print); and, finally, (6) a general coverage of detailed tricks of the trade which may have been overlooked in other phases of training.

Similarly, our machine shop and maintenance groups are covered in detail on such main topics as tools and their care, machine setup and care, and costs involved in wastage, breakage, wages, tools, equipment, etc.

Also, our heat treat and forge men are given useful information of a

technical nature on such subjects as simple chemical factors, steel-making background, different grades of steel and heat treatment of metals. All this adds up to a better understanding of what happens to the metal which they handle every day.

Throughout the total program, our men are introduced to such information as (1) departmental relationships—including interpretations of their jobs in relation to other jobs within their departments and within the company; (2) customer relationships, including facts on the materials purchased and their uses; and (3) supplies relationships, including data on the industries which contribute to our production and the extent of each contribution. This, with other training matter, is augmented by carefully selected movies, slide films and camera shots which give us visual support of a very utilitarian nature.

EVALUATION

In evaluating an educational program, we must turn to the individuals who provided the motivation—in this case, management, supervision and men. They are the ones who stand to benefit the most and, consequently, they will have definite ideas on the value of the training. We determine the opinions of the supervisors and the men through individual interviews and evaluation forms. Management, on the other hand, may not have had an opportunity to observe the success or failure of the program, so we must interpret the evaluation to it.

It is difficult to determine solid gains in job efficiency over a short period of time; at least, we cannot actually say that any noticeable increase is due specifically to the instruction received in the related training program. We do feel justified, however, in expecting to make certain comparisons between operators who have taken the courses and those who have not over a period of months. Evaluation form replies definitely follow a consistent pattern, indicating gains in interests and enthusiasms; and these interests and enthusiasms are built around matters which have been considered basic causes of job dissatisfaction—a problem which has plagued management considerably. In analyzing the concomitant gains, we must consider any elimination of job dissatisfaction as an extremely noteworthy achievement. Accomplishments as a whole seem to fall in the following brackets:

1. As classwork stimulates new interests and gives the men something to think about, it tends to relieve the monotony of the job. The men seem to recognize this, although they do not indicate it in so many words; and the foremen, too, feel that this result has been achieved. Moreover, the

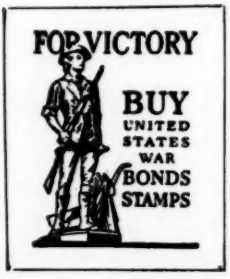
latter state that the men's minds are often taken off petty grievances through this work.

2. Opportunities for self-expression, a basic human need, are created. Certainly such opportunities are not too prevalent in the worker's life on the job.

3. Class sessions provide "inside dope" on the company, its product and organization, and similar types of information which help to eliminate the feeling of being "left out."

4. Class meetings provide answers to many of the questions the men would like to ask about various job relationships; when they do not have these answers, those silly misunderstandings which can cause so much dissatisfaction may easily develop.

5. Closer relationships are established between the men, which helps to promote harmony and teamwork. Classwork develops fuller appreciation of the other fellow's personality.

6. A special course of study about his job makes a man feel that what he is doing is worth consideration and, consequently, that it must be important. Practically every man likes to feel that he is doing something worthwhile.

If these gains are actually made, our educational program can logically be considered successful even though we seem to relegate the subject matter to the background. After all, we are dealing with the human mind, and any advantageous impression we can make on it will contribute to job efficiency, which, in turn, leads to our ultimate goal—smoothly flowing production.